

WEST Search History

DATE: Monday, August 09, 2004

<u>Hide?</u>	<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>
<i>DB=USPT; PLUR=YES; OP=ADJ</i>			
<input type="checkbox"/>	L19	l17 and l18	32
<input type="checkbox"/>	L18	(l13 or l15).ti,ab,clm.	13260
<input type="checkbox"/>	L17	L16 same l15	140
<input type="checkbox"/>	L16	l13 same l14	2349
<input type="checkbox"/>	L15	GPP or GPDH or G3PP\$ or G3PDH or dehydrogenase or phosphatase	36159
<input type="checkbox"/>	L14	transform\$	337857
<input type="checkbox"/>	L13	glycerol	93423
<i>DB=EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ</i>			
<input type="checkbox"/>	L12	l3 and L11 not l5	0
<input type="checkbox"/>	L11	GPP	121
<input type="checkbox"/>	L10	l3 and L9 not l5	0
<input type="checkbox"/>	L9	GPDH	20
<input type="checkbox"/>	L8	G3PP\$	0
<input type="checkbox"/>	L7	l3 and L6 not l5	0
<input type="checkbox"/>	L6	G3PDH	15
<input type="checkbox"/>	L5	l3 and L4	29
<input type="checkbox"/>	L4	dehydrogenase or phosphatase	9635
<input type="checkbox"/>	L3	l1 and L2	241
<input type="checkbox"/>	L2	transform\$	314651
<input type="checkbox"/>	L1	glycerol	27437

END OF SEARCH HISTORY

Glycerol is an industrially useful material. However, other compounds may be derived from the glycerol biosynthetic pathway that also have commercial significance. For example, glycerol-producing organisms may be engineered to produce 1,3-propanediol (U.S. 5686276), a monomer having potential utility in the production of polyester fibers and the manufacture of polyurethanes and cyclic compounds. It is known for example that in some organisms, glycerol is converted to 3-hydroxypropionaldehyde and then to 1,3-propanediol through the actions of a dehydratase enzyme and an oxidoreductase enzyme, respectively. Bacterial strains able to produce 1,3-propanediol have been found, for example, in the groups *Citrobacter*, *Clostridium*, *Enterobacter*, *Ilyobacter*, *Klebsiella*, *Lactobacillus*, and *Pelobacter*. Glycerol dehydratase and diol dehydratase systems are described by Seyfried et al. (1996) *J. Bacteriol.* 178:5793-5796 and Tobimatsu et al. (1995) *J. Biol. Chem.* 270:7142-7148, respectively. Recombinant organisms, containing exogenous dehydratase enzyme, that are able to produce 1,3-propanediol have been described (U.S. 5686276). Although these organisms produce 1,3-propanediol, it is clear that they would benefit from a system that would minimize glycerol conversion.

There are a number of advantages in engineering a glycerol-producing organism for the production of 1,3-propanediol where conversion of glycerol is minimized. A microorganism capable of efficiently producing glycerol under physiological conditions is industrially desirable, especially when the glycerol itself will be used as a substrate *in vivo* as part of a more complex catabolic or biosynthetic pathway that could be perturbed by osmotic stress or the addition of steering agents (e.g., the production of 1,3-propanediol). Some attempts at creating glycerol kinase and glycerol dehydrogenase mutants have been made. For example, De Koning et al. (1990) *Appl. Microbiol Biotechnol.* 32:693-698 report the methanol-dependent production of dihydroxyacetone and glycerol by mutants of the methylotrophic yeast *Hansenula polymorpha* blocked in dihydroxyacetone kinase and glycerol kinase. Methanol and an additional substrate, required to replenish the xyulose-5-phosphate co-substrate of the assimilation reaction, were used to produce glycerol; however, a dihydroxyacetone reductase (glycerol dehydrogenase) is also required. Similarly, Shaw and Cameron, Book of Abstracts, 211th ACS National Meeting, New Orleans, LA, March 24-28 (1996), BIOT-154 Publisher: American Chemical Society, Washington, D. C., investigate the deletion of *ldhA* (lactate dehydrogenase), *glpK* (glycerol kinase), and *tpiA* (triosephosphate isomerase) for the optimization of 1,3-propanediol production. They do not suggest the expression of cloned genes for G3PDH or G3P phosphatase for the

protein having a glycerol-3-phosphatase activity. In addition to the G3PDH and G3P phosphatase genes, the host cell will contain disruptions in one or both of a gene encoding an endogenous glycerol kinase and a gene encoding an endogenous glycerol dehydrogenase. Where the production cell is designed to produce 1,3-propanediol, it will additionally contain a gene encoding a protein having a dehydratase activity.

The terms "foreign gene", "foreign DNA", "heterologous gene", and "heterologous DNA" all refer to genetic material native to one organism that has been placed within a different host organism.

The term "endogenous" as used herein with reference to genes or polypeptides expressed by genes, refers to genes or polypeptides that are native to a production cell and are not derived from another organism. Thus an "endogenous glycerol kinase" and an "endogenous glycerol dehydrogenase" are terms referring to polypeptides encoded by genes native to the production cell.

The terms "recombinant organism" and "transformed host" refer to any organism transformed with heterologous or foreign genes. The recombinant organisms of the present invention express foreign genes encoding G3PDH and G3P phosphatase for the production of glycerol from suitable carbon substrates. Additionally, the terms "recombinant organism" and "transformed host" refer to any organism transformed with endogenous (or homologous) genes so as to increase the copy number of the genes.

"Gene" refers to a nucleic acid fragment that expresses a specific protein, including regulatory sequences preceding (5' non-coding) and following (3' non-coding) the coding region. The terms "native" and "wild-type" gene refer to the gene as found in nature with its own regulatory sequences.

The terms "encoding" and "coding" refer to the process by which a gene, through the mechanisms of transcription and translation, produces an amino acid sequence. The process of encoding a specific amino acid sequence is meant to include DNA sequences that may involve base changes that do not cause a change in the encoded amino acid, or which involve base changes which may alter one or more amino acids, but do not affect the functional properties of the protein encoded by the DNA sequence. Therefore, the invention encompasses more than the specific exemplary sequences. Modifications to the sequence, such as deletions, insertions, or substitutions in the sequence which produce silent changes that do not substantially affect the functional properties of the resulting protein molecule are also contemplated. For example, alterations in the gene sequence which reflect the degeneracy of the genetic code, or which result in the production of a chemically equivalent amino acid at a given site, are contemplated; thus, a codon for the amino acid alanine, a

example, genes isolated from prokaryotes include GenBank accessions M34393, M20938, L06231, U12567, L45246, L45323, L45324, L45325, U32164, U32689, and U39682. Genes isolated from fungi include GenBank accessions U30625, U30876 and X56162; genes isolated from insects include GenBank
5 accessions X61223 and X14179; and genes isolated from mammalian sources include GenBank accessions U12424, M25558 and X78593.

Genes encoding G3P phosphatase are known. For example, GPP2 has been isolated from *Saccharomyces cerevisiae* and has the base sequence given by SEQ ID NO:5, which encodes the amino acid sequence given in SEQ ID NO:13
10 (Norbeck et al., (1996), *J. Biol. Chem.*, 271:13875).

For the purposes of the present invention, any gene encoding a G3P phosphatase activity is suitable for use in the method wherein that activity is capable of catalyzing the conversion of glycerol-3-phosphate and water to glycerol and inorganic phosphate. Further, any gene encoding the amino acid
15 sequence of G3P phosphatase as given by SEQ ID NOS:13 and 14 corresponding to the genes GPP2 and GPP1 respectively, will be functional in the present invention including any amino acid sequence that encompasses amino acid substitutions, deletions or additions that do not alter the function of the G3P phosphatase enzyme. The skilled person will appreciate that genes encoding
20 G3P phosphatase isolated from other sources will also be suitable for use in the present invention. For example, the dephosphorylation of glycerol-3-phosphate to yield glycerol may be achieved with one or more of the following general or specific phosphatases: alkaline phosphatase (EC 3.1.3.1) [GenBank M19159, M29663, U02550 or M33965]; acid phosphatase (EC 3.1.3.2) [GenBank
25 U51210, U19789, U28658 or L20566]; glycerol-3-phosphatase (EC 3.1.3.-) [GenBank Z38060 or U18813x11]; glucose-1-phosphatase (EC 3.1.3.10) [GenBank M33807]; glucose-6-phosphatase (EC 3.1.3.9) [GenBank U00445]; fructose-1,6-bisphosphatase (EC 3.1.3.11) [GenBank X12545 or J03207] or phosphotidyl glycerol phosphate phosphatase (EC 3.1.3.27) [GenBank M23546
30 and M23628].

Genes encoding glycerol kinase are known. For example, GUT1 encoding the glycerol kinase from *Saccharomyces* has been isolated and sequenced (Pavlik et al. (1993), *Curr. Genet.*, 24:21) and the base sequence is given by SEQ ID NO:6, which encodes the amino acid sequence given in
35 SEQ ID NO:15. Alternatively, *glpK* encodes a glycerol kinase from *E. coli* and is characterized by the base sequence given in GeneBank L19201, base pairs 77347-78855.

Genes encoding glycerol dehydrogenase are known. For example, *gldA* encodes a glycerol dehydrogenase from *E. coli* and is characterized by the base

buffer only. After the enzyme was added to the cuvette, an absorbance reading was taken. The first substrate, NADH (50 μ L 4 mM NADH; absorbance should increase approx 1.25 AU), was added to determine the background rate. The rate should be followed for at least 3 min. The second substrate, DHAP (50 μ L 40 mM DHAP), was then added and the absorbance change over time was monitored for at least 3 min to determine the gross rate. G3PDH activity was defined by subtracting the background rate from the gross rate.

¹³C-NMR Assay for Glycerol Kinase Activity

An appropriate amount of enzyme, typically a cell-free crude extract, was added to a reaction mixture containing 40 mM ATP, 20 mM MgSO₄, 21 mM uniformly ¹³C labelled glycerol (99%, Cambridge Isotope Laboratories), and 0.1 M Tris-HCl, pH 9 for 75 min at 25 °C. The conversion of glycerol to glycerol 3-phosphate was detected by ¹³C-NMR (125 MHz): glycerol (63.11 ppm, d, *J* = 41 Hz and 72.66 ppm, t, *J* = 41 Hz); glycerol 3-phosphate (62.93 ppm, d, *J* = 41 Hz; 65.31 ppm, br d, *J* = 43 Hz; and 72.66 ppm, dt, *J* = 6, 41 Hz).

NADH-linked Glycerol Dehydrogenase Assay

NADH-linked glycerol dehydrogenase activity in *E. coli* strains (*gldA*) was determined after protein separation by non-denaturing polyacrylamide gel electrophoresis. The conversion of glycerol plus NAD⁺ to dihydroxyacetone plus NADH was coupled with the conversion of 3-[4,5-dimethylthiazol-2-yl]-2,5-diphenyltetrazolium bromide (MTT) to a deeply colored formazan, using phenazine methosulfate (PMS) as mediator. (Tang et al. (1997) *J. Bacteriol.* 140:182).

Electrophoresis was performed in duplicate by standard procedures using native gels (8-16% TG, 1.5 mm, 15 lane gels from Novex, San Diego, CA). Residual glycerol was removed from the gels by washing 3x with 50 mM Tris or potassium carbonate buffer, pH 9 for 10 min. The duplicate gels were developed, with and without glycerol (approx. 0.16 M final concentration), in 15 mL of assay solution containing 50 mM Tris or potassium carbonate, pH 9, 60 mg ammonium sulfate, 75 mg NAD⁺, 1.5 mg MTT, and 0.5 mg PMS.

The presence or absence of NADH-linked glycerol dehydrogenase activity in *E. coli* strains (*gldA*) was also determined, following polyacrylamide gel electrophoresis, by reaction with polyclonal antibodies raised to purified *K. pneumoniae* glycerol dehydrogenase (*dhaD*).

Set	Items	Description
S1	68	'GLYCEROL 3-PHOSPHATE DEHYDROGENASE (NAD+)'
	Ref	Items RT Index-term
	E1	1 GLYCEROLPHOSPHATASE
	E2	3107 GLYCEROLPHOSPHATE
	E3	0 *GLYCEROLPHOSPHATE DEHYDROGENASE
	E4	0 1 GLYCEROLPHOSPHATE ACYLTRANSFERASE
	E5	2958 2 GLYCEROLPHOSPHATE DEHYDROGENASE
	E6	1 GLYCEROLPHOSPHATE DEHYDROGENASE --ADMINISTRATI
	E7	457 GLYCEROLPHOSPHATE DEHYDROGENASE --ANALYSIS --A
	E8	96 GLYCEROLPHOSPHATE DEHYDROGENASE --ANTAGONISTS
	E9	144 GLYCEROLPHOSPHATE DEHYDROGENASE --BIOSYNTHESIS
	E10	132 GLYCEROLPHOSPHATE DEHYDROGENASE --BLOOD --BL
	E11	3 GLYCEROLPHOSPHATE DEHYDROGENASE --CEREBROSPINA
	E12	47 GLYCEROLPHOSPHATE DEHYDROGENASE --CHEMISTRY --
	E13	20 GLYCEROLPHOSPHATE DEHYDROGENASE --DEFICIENCY -
	E14	3 GLYCEROLPHOSPHATE DEHYDROGENASE --DIAGNOSTIC U
	E15	17 GLYCEROLPHOSPHATE DEHYDROGENASE --DRUG EFFECTS
	E16	366 GLYCEROLPHOSPHATE DEHYDROGENASE --GENETICS --G
	E17	8 GLYCEROLPHOSPHATE DEHYDROGENASE --IMMUNOLOGY -
	E18	110 GLYCEROLPHOSPHATE DEHYDROGENASE --ISOLATION AN
	E19	1717 GLYCEROLPHOSPHATE DEHYDROGENASE --METABOLISM -
	E20	1 GLYCEROLPHOSPHATE DEHYDROGENASE --PHARMACOKINE
	E21	7 GLYCEROLPHOSPHATE DEHYDROGENASE --PHARMACOLOGY
	E22	16 GLYCEROLPHOSPHATE DEHYDROGENASE --PHYSIOLOGY -
	E23	4 GLYCEROLPHOSPHATE DEHYDROGENASE --RADIATION EF
	E24	1 GLYCEROLPHOSPHATE DEHYDROGENASE --URINE --UR
S2	366	'GLYCEROLPHOSPHATE DEHYDROGENASE --GENETICS --G'
	Ref	Items Type RT Index-term
	R1	2958 2 'GLYCEROLPHOSPHATE DEHYDROGENASE
	R2	2906 X DC=D8.811.682.47.150.700.400. (GLYCEROLPHOSPHATE DEHYDROGENASE)
	R3	1110 B 7 SUGAR ALCOHOL DEHYDROGENASES
	S3	2906 DC=D8.811.682.47.150.700.400.' (GLYCEROLPHOSPHATE DEHYDROGENASE)
	S4	102599 'RECOMBINANT PROTEINS'
	S5	68 S1 AND S3
	S6	100143 PHOSPHATASE
	S7	2 S5 AND S6
	S8	9 S2 AND S4 NOT S1
	S9	31066 GLYCEROL
	S10	123789 DEHYDROGENASE
	S11	106 S9 AND S6 AND S10
	7/61	11084571 PMID: 11123696 Molecular and physiological characterization of the NAD-dependentglycerol 3-phosphate dehydrogenase in the filamentous fungus Aspergillusnidulans. Jan 2001
	7/62	11079742 PMID: 11113971 Microaerobic glycerol formation in Saccharomyces cerevisiae. Dec 2000
	8/61	15895343 PMID: 14734031 Heterologous expression of Zygosaccharomyces rouxii glycerol 3-phosphate dehydrogenase gene (ZrGPD1) and glycerol dehydrogenase gene (ZrGCV1) in Saccharomyces cerevisiae. Jan 2004
	8/62	14198302 PMID: 9914512 Affinity chromatography using trypanocidal arsenical drugs identifies a specific interaction between glycerol-3-phosphate dehydrogenase from Trypanosoma brucei and Cymelarsan. Jan 1999
	8/63	14027956 PMID: 9726992 The soluble alpha-glycerophosphate oxidase from Enterococcus casseliflavus. Sequence homology with the membrane-associated dehydrogenase and kinetic analysis of the recombinant enzyme. Sep 11 1998
	8/64	13596693 PMID: 9281576 Osmotic balance regulates cell fusion during mating in Saccharomyces cerevisiae. Sep 8 1997
	8/65	13014252 PMID: 8687421 Molecular cloning of human mitochondrial glycerophosphate dehydrogenase gene: genomic structure, chromosomal localization, and existence of a pseudogene. Jun 25 1996
	8/66	12727001 PMID: 7648448 Expression of leukemia inhibitory factor and interleukin-11 by human melanoma cell lines: LIF, IL-6, and IL-11 are not coregulated. May 1999
	8/67	12720809 PMID: 7642508 Identification of Pseudomonas aeruginosa gpM, whose gene product is required for efficient alginate biosynthesis from various carbon sources Aug 1995
	8/68	10235491 PMID: 7937996 Cloning of a cDNA for the FAD-linked glycerol-3-phosphate dehydrogenase from rat liver and its regulation by thyroid hormones. Oct 25 1994
	8/69	08945179 PMID: 1676389 Cloning and characterisation of the Saccharomyces cerevisiae glycerol-3-phosphate dehydrogenase (GUT2) promoter. May 15 1991
	11/61	16541507 PMID: 14680476 Expression of YAP4 in Saccharomyces cerevisiae under osmotic stress. Apr 15 2004
	11/62	16533455 PMID: 14703014 Localization of an alkyl-acetyl- glycerol -CDP-choline: cholinephosphotransferase activity in submitochondrial fractions of Tetrahymena pyiformis. Nov 2003
	11/63	16533165 PMID: 14524727 Novel fermentation strategy for enhancing glycerol production by Candida krusei. Sep-Oct 2003
	11/64	16463741 PMID: 15146068 Identification of Al6p as the target of a class of small-molecule suppressors of FK506 and their use in network dissection. May 25 2004
	11/65	16236658 PMID: 15113568 Engineering of Saccharomyces cerevisiae for the production of L- glycerol 3-phosphate. Apr 2004
	11/66	15959211 PMID: 14711646 Comparative metabolic flux analysis of lysine-producing Corynebacterium glutamicum cultured on glucose or fructose. Jan 2004
	11/67	15895343 PMID: 14734031 Heterologous expression of Zygosaccharomyces rouxii glycerol 3-phosphate dehydrogenase gene (ZrGPD1) and glycerol dehydrogenase gene (ZrGCV1) in Saccharomyces cerevisiae. Jan 2004
	11/68	15013151 PMID: 12548942 The key enzymes of metabolisms of glycerol in Candida glycerogenesis Apr 2000
	11/69	14310981 PMID: 10217506 Different signalling pathways contribute to the control of GPD1 gene expression by osmotic stress in Saccharomyces cerevisiae. Mar 1999
	11/610	14197975 PMID: 9918511 Importance of glutamate dehydrogenase stimulation for glucose and glutamine synthesis in rabbit renal tubules incubated with various amino acids. 1998
	11/611	14141662 PMID: 9839444 Control of mRNA turnover as a mechanism of glucose repression in Saccharomyces cerevisiae. Nov 1998
	11/612	14069547 PMID: 9770290 Control of metabolic interconversion of isocitrate dehydrogenase between the catalytically active and inactive forms in Escherichia coli. Sep 1 1998
	11/613	13944333 PMID: 9645343 Differential expression of key enzymes of energy metabolism in preneoplastic and neoplastic rat liver lesions induced by N-nitrosomorpholine and dehydroepiandrosterone. Jun 19 1998
	11/614	13844839 PMID: 9545023 The effect of glucose concentration on insulin-induced 3T3-L1 adipose cell differentiation. Mar 1998

- 11/6/15 13771996 PMID: 9467872
Synthesis of citrate from phosphoenolpyruvate and acetylcarbamate by mitochondria from rabbit enterocytes: implications for lipogenesis. Nov 1997
- 11/6/16 13743532 PMID: 9437508
Immortalization of human marrow stromal cells by retroviral transduction with a temperature sensitive oncogene: identification of bipotential precursor cells capable of directed differentiation to either an osteoblast or adipocyte phenotype. Jan 1998
- 11/6/17 13611975 PMID: 9298657
Osmoresponsive proteins and functional assessment strategies in *Saccharomyces cerevisiae*. Aug 1997
- 11/6/18 13548051 PMID: 9234667
Modulation of glycerol and ethanol yields during alcoholic fermentation in *Saccharomyces cerevisiae* strains overexpressed or disrupted for GPD1 encoding glycerol 3-phosphate dehydrogenase. Jul 1997
- 11/6/19 13504931 PMID: 9190814
Pathways for utilization of carbon reserves in *Desulfovibrio gigas* under fermentative and respiratory conditions. Jun 1997
- 11/6/20 13466993 PMID: 9150920
Identification of two-dimensional gel electrophoresis resolved yeast proteins by matrix-assisted laser desorption/ionization mass spectrometry. Mar-Apr 1997
- 11/6/21 13369609 PMID: 9042961
Osmoregulation and protein expression in a *pbs2delta* mutant of *Saccharomyces cerevisiae* during adaptation to hypersaline stress. Feb 17 1997
- 11/6/22 13279048 PMID: 8947576
Pressure effects on the structure of oligomeric proteins prior to subunit dissociation. Nov 15 1996
- 11/6/23 13027032 PMID: 8704043
Enzymatic determination of phosphatidylcholine, sphingomyelin and phosphatidylglycerol in lipid dispersions, blood cell membranes and rat pulmonary surfactant. Jan 1996
- 11/6/24 12966927 PMID: 8649397
Activation and regulation of the *Spc1* stress-activated protein kinase in *Schizosaccharomyces pombe*. Jun 1996
- 11/6/25 12835488 PMID: 7589853
Evolution of beta-cell dysfunction in the male Zucker diabetic fatty rat. Dec 1995
- 11/6/26 12535009 PMID: 7857262
Glycerol-3-phosphate dehydrogenase activity in human lymphocytes: effects of insulin, obesity and weight loss. Feb 6 1995
- 11/6/27 12441460 PMID: 12852853
Suppression of beta cell energy metabolism and insulin release by PGC-1alpha. Jul 2003
- 11/6/28 12275948 PMID: 12627397
Proteome analysis of recombinant xyllose-fermenting *Saccharomyces cerevisiae*. Mar 2003
- 11/6/29 12210895 PMID: 12438314
Critical reduction in beta-cell mass results in two distinct outcomes over time. Adaptation with impaired glucose tolerance or decompensated diabetes. Jan 31 2003
- 11/6/30 11963227 PMID: 12173290
Seasonal changes in glycerol content and enzyme activities in overwintering larvae of the Shonai ecotype of the rice stem borer, *Chilo suppressalis* Walker. Jun 2002
- 11/6/31 11940949 PMID: 12145146
Effects of benfluorex on fatty acid and glucose metabolism in isolated rat hepatocytes: from metabolic fluxes to gene expression. Aug 2002
- 11/6/32 11809808 PMID: 11999115
Protein expression during lag phase and growth initiation in *Saccharomyces cerevisiae*. May 5 2002
- 11/6/33 11761280 PMID: 11940106
Identification of two novel and potent competitive inhibitors of the glucose-6-phosphatase catalytic protein. Mar 2002
- 11/6/34 11523501 PMID: 11689198
The inhibition of gluconeogenesis by chloroquine contributes to its hypoglycaemic action. Oct 12 2001
- 11/6/35 11511208 PMID: 11676566
Glycerol export and glycerol-3-phosphate dehydrogenase, but not glycerol phosphatase, are rate limiting for glycerol production in *Saccharomyces cerevisiae*. Oct 2001
- 11/6/36 11362361 PMID: 11452517
Effects of a highly toxic coplanar polychlorinated biphenyl, 3,3',4,4',5-pentachlorobiphenyl on intermediary metabolism: reduced triose phosphate content in rat liver cytosol. May 2001
- 11/6/37 11084571 PMID: 11123696
Molecular and physiological characterization of the NAD-dependent glycerol 3-phosphate dehydrogenase in the filamentous fungus *Aspergillus nidulans*. Jan 2001
- 11/6/38 11079742 PMID: 11113971
Microaerobic glycerol formation in *Saccharomyces cerevisiae*. Dec 2000
- 11/6/39 10817905 PMID: 10941196
Osteogenesis coordinated in C3H10T1/2 cells by adipogenesis-dependent BMP-2 expression system. Feb 2000
- 11/6/40 10523626 PMID: 10623658
Hyperproliferative hepatocellular alterations after intraportal transplantation of thyroid follicles. Jan 2000
- 11/6/41 10345999 PMID: 7845386
Metabolic adaptation of renal carbohydrate metabolism. V. In vivo response of rat renal-tubule gluconeogenesis to different diuretics. Aug 31 19
- 11/6/42 10035199 PMID: 8151068
A continuous spectrophotometric assay for alkaline phosphatase with glycerophosphate as substrate. Jan 1994
- 11/6/43 10014601 PMID: 8133737
Role of calcium in respiratory control. Jan 1994
- 11/6/44 09889344 PMID: 8237077
Studies on the metabolism of metallothionein and alkaline phosphatase of adult rat primary hepatocyte cultures: role of fetal calf serum and agonists of the phosphoinositide cascade. Sep 1993
- 11/6/45 09818114 PMID: 8369422
Glycerol effects on protein flexibility: a tryptophan phosphorescence study. Jul 1993
- 11/6/46 09343404 PMID: 1351815
Blood chemistry of reindeer calves (*Rangifer tarandus*) during the winter season. May 1992
- 11/6/47 09278373 PMID: 1315252
Enzymic and metabolic anomalies in islets of diabetic rats: relationship to B cell mass. May 1992
- 11/6/48 09208036 PMID: 1838885
Effect of ionizing radiation on the nucleus supraopticus. 1991
- 11/6/49 08733512 PMID: 2152341
Phenotypic patterns of preneoplastic and neoplastic hepatic lesions in woodchucks infected with woodchuck hepatitis virus. 1990
- 11/6/50 08523250 PMID: 2336924
Cell features in pancreas of prediabetic and diabetic rabbits after Wirsung duct ligation. Histochemical and hisbenzymatic studies. Jan-Mar 199
- 11/6/51 08350320 PMID: 2588350
[Rapid simultaneous isolation of microsomes and plasma membranes from neuroblastoma C-1300 N 18 cells] Bystroe odnoveremnoe vydeleniye mikrosom i plazmaticheskikh membrann kletok neuroblastomy C 1300 N 18. Sep-Oct 1989
- 11/6/52 08340810 PMID: 2583481
Genetic mapping in *Xenopus laevis*: eight linkage groups established. Oct 1989
- 11/6/53 08222282 PMID: 2569254
Unusual histochemical pattern in preneoplastic hepatic foci characterized by hyperactivity of several enzymes. 1989
- 11/6/54 07761763 PMID: 2835008
Triacylglycerol synthesis in developing seeds of groundnut (*Arachis hypogaea*): pathway and properties of enzymes of sn-glycerol 3-phosphate formation. May 1 1988
- 11/6/55 07334474 PMID: 3802501
Automated enzymatic measurement of lecithin sphingomyelin, and phosphatidylglycerol in amniotic fluid. Jan 1987
- 11/6/56 07204869 PMID: 2874812
Effects of an antitumoural rhodium complex on thioacetamide-induced liver tumor in rats. Changes in the activities of ornithine decarboxylase, tyrosine aminotransferase and of enzymes involved in fatty acid and glycerolipid synthesis. Aug 15 1986
- 11/6/57 07193931 PMID: 3016535
Glycerol, a metabolic end product of *Trichomonas vaginalis* and *Trichomonas betus*. Jul 1986

11/6/68 07152825 PMID: 3013315
Comparison of the enzyme activities of phosphatidylcholine, phosphatidylglycerol and phosphatidylinositol synthesis in freshly isolated type II pneumocytes and whole lung from the adult rat. Jun 11 1986

11/6/69 06962796 PMID: 40632399
Paradoxical effect of ethanol on liver lipogenesis in the genetically-obese Zucker rat. Jul 1985

11/6/60 06802303 PMID: 60399366
Polyol metabolism in fungi. 1984

11/6/61 06741086 PMID: 6527091
Rat liver 3-oxo-5 alpha-steroid delta 4- dehydrogenase . Modulation of enzyme activity by changes in phosphorylation state. Nov 1984

11/6/62 06718636 PMID: 6521636
[Toxic effect of carbon tetrachloride on the myocardium. II. Experimental part. A. Histochemical analysis of the rat myocardium in acute carbon tetrachloride poisoning]. Toksyczne dzialanie czterochloru wegla na miesien sercowy. II. Czeszc doswadczenia. A. Histochemiczna ocena miesnia sercowego szczura w toku ostrego zatrucia czterochlorkiem wegla. 1984

11/6/63 06712627 PMID: 6083994
Histochemical observations on the exoerythrocytic malaria parasite Plasmodium berghei in rat liver. 1984

11/6/64 06645580 PMID: 6492796
Influence of phosphatase inhibitors and nucleotides on [3H]dexamethasone binding in cytosol of human placenta. Oct 1984

11/6/65 06539105 PMID: 6092205
The interaction of carbaryl with the metabolism of isolated hepatocytes: II. Effect on gluconeogenesis. 1984

11/6/66 06538273 PMID: 6092109
Effect of levamisole on bone resorption in cultured mouse calvaria. Oct 1 1984

11/6/67 06461532 PMID: 6696738
Microsomal and lysosomal enzymes of triacylglycerol metabolism in rat placenta. Jan 15 1984

11/6/68 06240107 PMID: 6615762
The effect of biotin deficiency and dietary protein content on lipogenesis, gluconeogenesis and related enzyme activities in chick liver. Sep 1983

11/6/69 06164584 PMID: 6305495
Isenzyme phenotypes of polyoma virus tumors in mice. Aug 1983

11/6/70 06136789 PMID: 6342662
Penetration of dioxigen into proteins studied by quenching of phosphorescence and fluorescence. Mar 29 1983

11/6/71 06072785 PMID: 6298508
Age-related changes in 5-nucleotidase and alkaline phosphatase activities in mouse thymocytes. Nov 1982

11/6/72 05674593 PMID: 7284426
Synthesis and release of lipids and lipoproteins by isolated rat jejunal enterocytes in the presence of sodium taurocholate. Aug 24 1981

11/6/73 05498052 PMID: 7467099
A biochemical study of the Arab Horse Society's marathon race. Dec 6 1980

11/6/74 05479184 PMID: 6257206
Quantitative measurements of human bone enzymes. 1980

11/6/75 05443941 PMID: 7442084
[Seasonal variation of blood components important for diagnosis (author's trans)] Jahreszeitliche Veränderungen diagnostisch wichtiger Blutbestandteile. Aug 1 1980

11/6/76 05418110 PMID: 6253483
Regulation of phosphatidylcholine biosynthesis in cultured chick embryonic muscle treated with phospholipase C. Nov 25 1980

11/6/77 05312781 PMID: 6103922
Effect of corn oil feeding on triglyceride synthesis in the rat. Jun 1980

11/6/78 05180168 PMID: 159882
Histochemical characteristics of a tonic smooth muscle. Sep 1979

11/6/79 05164279 PMID: 5035999
Histological and histochemical studies of the effect of intravenous injection of hyperosmotic glycerol solution on the rat kidney]. Badania histologiczne i histochemiczne wplywu dozynnego podawania hiperosmotycznego roztworu glicerolu na nefke szczura. Jan-Mar 1979

11/6/80 04710645 PMID: 23936
[Standardisation of obtaining blood samples: influence of tourniquet application on 33 constituents of blood and serum (author's trans)] Standardisierung der Blutentnahme. Einfluss der Staunung auf 33 Blut- und Serumbestandteile. Feb 10 1978

11/6/81 04588558 PMID: 19417
Myxospore coat synthesis in Myxococcus xanthus: enzymes associated with uridine 5'-diphosphate-N-acetyl-galactosamine formation during myxospore development. Sep 1977

11/6/82 04565065 PMID: 142010
Localization of glycerol -3-phosphate oxidase in the mitochondrion and particulate NAD+-linked glycerol -3-phosphate dehydrogenase in the microbodies of the bloodstream form of Trypanosoma brucei. Jun 1 1977

11/6/83 04565066 PMID: 195809
Particle-bound enzymes in the bloodstream form of Trypanosoma brucei. Jun 1 1977

11/6/84 04563035 PMID: 195683
Uridine phosphorylase activity of isolated plasma membranes of rat liver. May 1977

11/6/85 04505970 PMID: 870461
The influence of freezing and freeze-drying of tissue specimens on enzyme activity. Apr 4 1977

11/6/86 04462290 PMID: 844954
Enzymatic assay of fructose-1,5-diphosphate for the measurement of its utilization by tissues. 1977

11/6/87 04373669 PMID: 977482
Changes in articular cartilage following intraarticular injection of tritiated glyceryl trioleate. Sep 1976

11/6/88 04348141 PMID: 61104
Cryoprotectant-treated myocardium evaluation. Aug 1976

11/6/89 04304837 PMID: 7367
Simplified, totally enzymatic method for determination of serum triglycerides with a centrifugal analyzer. Aug 1976

11/6/90 04281408 PMID: 179754
Nematode biochemistry--XV. Enzyme changes related to glycerol excretion in Caenorhabditis briggsae. 1976

11/6/91 03883936 PMID: 4472857
[A histochemical study of proximal tubular cells in experimental tubular necrosis in the rat kidney (author's trans)] Jan 1974

11/6/92 03815123 PMID: 4366250
Regulation of glycerol catabolism in Klebsiella aerogenes. Jul 1974

11/6/93 03789108 PMID: 4364467
Pyruvate carboxylase in human liver. Apparent loss of a component of catalytic activity in a form of lactic acidosis with hypoglycemia. Jun 1974

11/6/94 03629644 PMID: 4147215
Stereochemistry of reduction of D-glyceraldehyde catalyzed by a nicotinamide adenine dinucleotide phosphate dependent dehydrogenase from skeletal muscle. Aug 28 1973

11/6/95 03604813 PMID: 4721721
Membrane permeability of hepatic mitochondria and lysosomes studied by structure-linked enzyme changes. Aug 1973

11/6/96 03590391 PMID: 4146069
Various new clinical chemical data in the blood of normal ponies and ponies affected with hyperlipaemia (hyperlipoproteinaemia). Jul 15 1973

11/6/97 03434522 PMID: 4342517
Turnover of plasma membrane during phagocytosis. Sep 1972

11/6/98 03124541 PMID: 4397104
Dihydrouracil dehydrogenase of rat liver. Separation of hydrogenase and dehydrogenase activities. Jun 10 1971

11/6/99 03070994 PMID: 4100604
The lipids of membranous cell organelles isolated from the ciliate, Tetrahymena pyriformis. Feb 2 1971

11/6/100 03026370 PMID: 4321372
Synthesis of 1-halo analogs of DL-glycerol 3-phosphate and their effects on glycerol phosphate dehydrogenase . Aug 4 1970

11/6/101 029465200 PMID: 4194785

[Investigations about biological actions of a lipolytic peptide isolated from pig pituitaries (fraction H). 3. Effect on enzyme activities in adipose tissue and liver] Untersuchungen über biologische Wirkungen eines lipolytisch wirksamen Peptids aus Schweinehypophysen (Fraktion H). 3. Wirkung auf Enzymaktivitäten in Fettgewebe und Leber. 1969

11/6/102 02847557 PMID: 4313892

The intramitochondrial distribution of some enzymes involved in the biosynthesis of rat-liver phospholipids. Feb 10 1970

11/6/103 02757487 PMID: 4309869

Regulation of the level of key enzymes of glycolysis and gluconeogenesis in liver. Sep 1969

11/6/104 02739879 PMID: 4309093

[Study of the enzymatic activities of liver and epididymal adipose tissue of Wistar H rats during a hyperlipidic diet. II. Reversibility when placed on the control diet] Etude des activités enzymatiques du foie et du tissu adipeux epididymaire du rat Wistar H au cours d'un régime hyperlipidique. 1969

11/6/105 02322559 PMID: 4292846

Dietary response of various key enzymes related to glucose metabolism in normal and diabetic rat liver. Mar 22 1967

11/6/106 00032273 PMID: 14217903

THE CONTROL OF DISSIMILATION OF GLYCEROL AND L-ALPHA-GLYCEROPHOSPHATE IN ESCHERICHIA COLI. Sep 1964

09aug04 10:02:46 User208600 Session D1629.2

File 5:BIosis Previews(R) 1969-2004/Aug W1 (c) 2004 BIOSIS

Set Items Description

S1 36001 GLYCEROL

S2 128976 DEHYDROGENASE

S3 105587 PHOSPHATASE

S4 185 S1 AND S2 AND S3

S5 231941 TRANSFORM?

S6 5 S4 AND S5

S7 73766 PLASMID

S8 0 S7 AND S4

S9 892502 GENE

S10 23 S9 AND S4

6/6/1 0011502506 BIOSIS NO.: 199800296753

Differential expression of key enzymes of energy metabolism in preneoplastic and neoplastic rat liver lesions induced by N-nitrosomorpholine and dehydroepiandrosterone 1998

6/6/2 0011294579 BIOSIS NO.: 199800088826

Immortalization of human marrow stromal cells by retroviral transduction with a temperature sensitive oncogene: Identification of bipotential precursor cells capable of directed differentiation to either an osteoblast or adipocyte phenotype 1998

6/6/3 0010934031 BIOSIS NO.: 199799568091

Focal hepatic glycogenosis: A putative preneoplastic lesion associated with neoplasia and cirrhosis in explanted human livers 1997

6/6/4 0006748669 BIOSIS NO.: 199898063784

UNUSUAL HISTOCHEMICAL PATTERN IN PRENEOPLASTIC HEPATIC FOCI CHARACTERIZED BY HYPERACTIVITY OF SEVERAL ENZYMES 1989

6/6/5 0004212934 BIOSIS NO.: 19847704845

ISOZYME PHENOTYPES OF POLYOMA VIRUS TUMORS IN MICE 1983

10/6/1 0014949973 BIOSIS NO.: 200400320730

Identification of Ald6p as the target of a class of small-molecule suppressors of FK506 and their use in network dissection 2004

10/6/2 0014921459 BIOSIS NO.: 20040029216

Expression of YAP4 in Saccharomyces cerevisiae under osmotic stress 2004

10/6/3 0014759536 BIOSIS NO.: 200400130293

Heterologous expression of Zygosaccharomyces rouxii glycerol 3-phosphate dehydrogenase gene (ZrGPD1) and glycerol dehydrogenase gene (ZrGCT1) in Saccharomyces cerevisiae. 2004

10/6/4 0014755741 BIOSIS NO.: 200400127498

Comparative metabolic flux analysis of lysine-producing Corynebacterium glutamicum cultured on glucose or fructose. 2004

10/6/5 0014484056 BIOSIS NO.: 200300441090

Suppression of beta cell energy metabolism and insulin release by PGC-1alpha. 2003

10/6/6 0014473826 BIOSIS NO.: 200300428670

Regulation of D-arabitol and glycerol accumulation by Candida albicans in response to environmental stresses. 2003

10/6/7 0014190057 BIOSIS NO.: 200300148776

Critical reduction in beta-cell mass results in two distinct outcomes over time. Adaptation with impaired glucose tolerance or decompensated diabetes. 2003

10/6/8 0013869208 BIOSIS NO.: 200200462719

Effects of benfluorex on fatty acid and glucose metabolism in isolated rat hepatocytes: From metabolic fluxes to gene expression 2002

10/6/9 0013775639 BIOSIS NO.: 200200370150

Differential gene expression in brains of rats fed a ketogenic diet 2002

10/6/10 0013689700 BIOSIS NO.: 200200283211

Protein expression during lag phase and growth initiation in Saccharomyces cerevisiae 2002

10/6/11 0013290857 BIOSIS NO.: 200100462696

Time course of a 40 hour fast on pyruvate dehydrogenase activation and kinase expression in human skeletal muscle 2001

10/6/12 0012899436 BIOSIS NO.: 200100071275

Molecular and physiological characterization of the NAD-dependent glycerol 3-phosphate dehydrogenase in the filamentous fungus Aspergillus nidulans 2001

10/6/13 0012883407 BIOSIS NO.: 200100055246

Microaerobic glycerol formation in Saccharomyces cerevisiae 2000

10/6/14 0012478366 BIOSIS NO.: 200000196679

Osteogenesis coordinated in C3H10T1/2 cells by adipogenesis-dependent BMP-2 expression system 2000

10/6/15 0011943915 BIOSIS NO.: 199900203575

Different signalling pathways contribute to the control of GPD1 gene expression by osmotic stress in Saccharomyces cerevisiae 1999

10/6/16 0011171712 BIOSIS NO.: 199799805772

Osmoresponsive proteins and functional assessment strategies in Saccharomyces cerevisiae 1997

10/6/17 0011063631 BIOSIS NO.: 199799697891

Modulation of glycerol and ethanol yields during alcoholic fermentation in Saccharomyces cerevisiae strains overexpressed or disrupted for GP encoding glycerol 3-phosphate dehydrogenase 1997

10/6/18 0010821522 BIOSIS NO.: 199799455582

Osmoregulation and protein expression in a pbs2-DELTA mutant of Saccharomyces cerevisiae during adaptation to hypersaline stress 1997

10/6/19 0010411623 BIOSIS NO.: 199699045683

Activation and regulation of the Spc1 stress-activated protein kinase in Schizosaccharomyces pombe 1996

10/6/20 0010138668 BIOSIS NO.: 199698606501

Evolution of beta-cell dysfunction in the male Zucker diabetic fatty rat 1995

10/6/21 0004593902 BIOSIS NO.: 198579012801

PROTEIN POLYMORPHISMS AND THEIR GENETIC CONTROL IN THE RED-BACKED VOLE CLETHRIONOMYS-RUFOCANUS-BEDFORDI 1984

10/6/22 0003261624 BIOSIS NO.: 198171080583

ISOLATION AND PROPERTIES OF A BACILLUS-SUBTILIS MUTANT UNABLE TO PRODUCE FRUCTOSE BIS PHOSPHATASE EC-3.1.3.1 1981

10/6/23 0002353849 BIOSIS NO.: 197865014836

ISOLATION AND CHARACTERIZATION OF YEAST MUTANTS DEFECTIVE IN INTERMEDIARY CARBON METABOLISM AND IN CARBON CATABOLITE DE REPRESSION 1977

09aug04 10:06:05 User208600 Session D1629.3

Set	Items	Description
S1	57893	GLYCEROL
S2	15009	DEHYDROGENASE
S3	29088	PHOSPHATASE
S4	5001	S1 AND S2 AND S3
S5	141746	TRANSFORM?
S6	4591	S4 AND S5
S7	42288	PLASMID
S8	4347	S7 AND S4
S9	78013	GENE
S10	4788	S9 AND S4
S11	599	S1(S)S2(S)S3
S12	544	S11 AND S5
S13	90	S11(S)S5
S14	14	S13 AND PY<1998
S15	493	S11 AND S8
S16	493	S11(S)S8
S17	60	S16 AND PY<1998
S18	47	S17 NOT S14
S19	572	S9 AND S11
S20	357	S9(S)S11
S21	2	S20 AND PY<1998 NOT (S18 OR S14)

13/T1/1 DIALOG(R)File 349:(c) 2004 WIPO/Univento. All rts. reserv.
NOVEL METHODS OF DIAGNOSIS OF METASTATIC CANCER, COMPOSITIONS AND METHODS OF SCREENING FOR MODULATORS OF
MATASTIC CANCER NOUVEAUX PROCES DE DIAGNOSTIC D'UN CANCER METASTATIQUE, COMPOSITIONS ET PROCES DE
DEPISTER DES MODULATEURS DU CANCER METASTATIQUE

13/T1/2 DIALOG(R)File 349:(c) 2004 WIPO/Univento. All rts. reserv.
COMPUTER SYSTEMS AND METHODS FOR ASSOCIATING GENES WITH TRAITS USING CROSS SPECIES DATA SYSTEMS ET
PROCEDES INFORMATIQUES PERMETTANT D'ASSOCIER DES GENES AVEC DES CARACTERISTIQUES AU MOYEN DE DONNEES
HETEROSPECIFIQUES

13/T1/3 DIALOG(R)File 349:(c) 2004 WIPO/Univento. All rts. reserv.

METHODS OF DETECTING SOFT TISSUE SARCOMA, COMPOSITIONS AND METHODS OF SCREENING FOR SOFT TISSUE SARCOMA
MODULATORS PROCES DE DETECTION DU SARCOME DES TISSUS MOUS, COMPOSITIONS ET PROCES DE CRIBLAGE DES
MODULATEURS DU SARCOME DES TISSUS MOUS

13/T1/4 DIALOG(R)File 349:(c) 2004 WIPO/Univento. All rts. reserv.

STRUCTURE OF THE FARNESOID X RECEPTOR LIGAND BINDING DOMAIN AND METHODS OF USE THEREFOR STRUCTURE DU
DOMAINE DE FIXATION DU LIGAND DU RECEPTEUR FARNESOIDE X ET PROCES D'UTILISATION DE CELLE-CI

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NON-STEROIDAL FARNESOID X RECEPTOR MODULATORS AND METHODS FOR THE USE THEREOF MODULATEURS NON
STEROIDIENS DU RECEPTEUR FARNESOIDE X ET METHODES
D'UTILISATION

14/T1/1 DIALOG(R)File 349:(c) 2004 WIPO/Univento. All rts. reserv.

MORAXELLA CATARRHALIS OUTER MEMBRANE PROTEIN-106 POLYPEPTIDE, GENE SEQUENCE AND USES THEREOF POLYPEPTIDE
DE LA PROTEINE-106 DE LA MEMBRANE EXTERNE DE MORAXELLA CATARRHALIS, SA SEQUENCE GENETIQUE ET SON UTILISATION

14/T1/2 DIALOG(R)File 349:(c) 2004 WIPO/Univento. All rts. reserv.

NOVEL TYROSINE KINASE RECEPTORS AND LIGANDS NOUVEAUX RECEPTEURS DU TYPE TYROSINE KINASE ET LIGANDS

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NUCLEOTIDE AND PROTEIN SEQUENCES OF VERTEBRATE DELTA GENES AND METHODS, BASED THEREON SEQUENCES
NUCLEOTIDIQUES ET PROTEIQUES DE GENES DELTA DE VERTEBRES ET PROCES FONDES SUR CES DERNIERES

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NUCLEOTIDE AND PROTEIN SEQUENCES OF LATS GENES AND METHODS BASED THEREON SEQUENCES NUCLEOTIDIQUES ET
PROTEIQUES DE GENES LATS ET PROCES LES UTILISANT

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DELTEX PROTEINS, NUCLEIC ACIDS, AND ANTIBODIES, AND RELATED METHODS AND COMPOSITIONS PROTEINES ET ACIDES
NUCLEIQUES DELTEX, ANTICORPS DIRIGES CONTRE CEUX-CI, ET PROCES ET COMPOSITIONS ASSOCIES

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NOVEL NEUTROPHIL INHIBITORS NOUVEAUX INHIBITEURS DE NEUTROPHILES

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HUMAN HOMOLOGS OF THE TRANSDUCIN-LIKE ENHANCER OF SPLIT GENE AND METHODS BASED THEREON HOMOLOGUES
HUMAINS DE L'ACTIVATEUR DU TYPE TRANSDUCINE DE GENES FRACTIONNES ET PROCES S'Y RAPPORTANT

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THERAPEUTIC AND DIAGNOSTIC METHODS AND COMPOSITIONS BASED ON TRANSDUCIN-LIKE ENHANCER OF SPLIT PROTEIN
AND NUCLEIC ACIDS PROCES THERAPEUTIQUES ET DIAGNOSTIQUES ET COMPOSITIONS A BASE D'ACTIVATEUR DE TYPE
TRANSDUCINE DE PROTEINES FRACTIONNEES ET D'ACIDES NUCLEIQUES

14/T1/9 DIALOG(R)File 349:(c) 2004 WIPO/Univento. All rts. reserv.

SEQUENCES CHARACTERISTIC OF HUMAN GENE TRANSCRIPTION PRODUCT SEQUENCES CARACTERISTIQUES DU PRODUIT DE
TRANSCRIPTION DES GENES HUMAINS

14/T1/10 DIALOG(R)File 349:(c) 2004 WIPO/Univento. All rts. reserv.

USE OF THIOL REDOX PROTEINS FOR REDUCING DISULFIDE BONDS UTILISATION DE PROTEINES D'OXYDOREDUCTION A BASE DE
THIOL POUR REDUIRE DES LAISONS BISULFURES

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BINDING DOMAINS IN NOTCH AND DELTA PROTEINS DOMAINES DE LIAISON DANS DES PROTEINES NOTCH ET DELTA

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PREPARATION FOR APPLICATION OF ACTIVE SUBSTANCES IN THE FORM OF MINIMUM-SIZED DROPLETS COMPOSITION
D'APPLICATION DE FINES GOUTTELETTES DE SUBSTANCES ACTIVES

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RECOMBINANT CMV NEUTRALIZING PROTEINS PROTEINES RECOMBINANTES DE NEUTRALISATION DE CMV

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ISOLATION, PURIFICATION, CHARACTERIZATION, CLONING AND SEQUENCING OF N-ALPHA ACETYLTRANSFERASE ISOLATION,
PURIFICATION, CARACTERISATION, CLONAGE ET MISE EN SEQUENCE DE N-ALPHA ACETYLTRANSFERASE

18/T1/1 DIALOG(R)File 349:(c) 2004 WIPO/Univento. All rts. reserv.

ADENOVIRAL MEDIATED GENE TRANSFER IN ADIPOCYTES AND RELATED IMPLANTS TRANSFERT DE GENES PAR MEDIATION
ADENOVIRALE DANS DES ADIPOCYTES ET IMPLANTS ASSOCIES

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TIE-2 RECEPTOR LIGANDS (TIE LIGAND-3; TIE LIGAND-4) AND THEIR USES LIGANDS DE RECEPTEURS DE TIE-2 (LIGANDS-3 TIE;
LIGANDS-4 TIE) ET LEURS UTILISATIONS

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CYCLIN-C VARIANTS, AND DIAGNOSTIC AND THERAPEUTIC USES THEREOF VARIANTES DE CYCLINE-C, LEURS UTILISATIONS
DIAGNOSTIQUES ET THERAPEUTIQUES

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CYCLIN D BINDING FACTOR, AND USES THEREOF FACTEUR DE LIAISON DE LA CYCLINE DE TYPE D ET EMPLOIS DUDIT PRODUIT
IDENTIFICATION AND ISOLATION OF NOVEL POLYPEPTIDES HAVING WW DOMAINS AND METHODS OF USING SAME IDENTIFICATI
ET ISOLEMENT DE NOUVEAUX POLYPEPTIDES AYANT DES DOMAINES WW ET PROCES D'UTILISATION

18/T1/5 DIALOG(R)File 349:(c) 2004 WIPO/Univento. All rts. reserv.

GROWTH FACTOR INDUCIBLE SERINE/THREONINE PHOSPHATASE FIN13 SERINE/THREONINE PHOSPHATASE FIN13 MODULANT L
FACTEUR DE CROISSANCE

18/T1/7 DIALOG(R)File 349:(c) 2004 WIPO/Univento. All rts. reserv.

MAMMALIAN ENDONUCLEASE III, AND DIAGNOSTIC AND THERAPEUTIC USES THEREOF ENDONUCLEASE III DE MAMMIFERES, E
UTILISATIONS DIAGNOSTIQUES ET THERAPEUTIQUES DE CETTE ENZYME

18/T1/8 DIALOG(R)File 349:(c) 2004 WIPO/Univento. All rts. reserv.

VERTEBRATE DELTEX PROTEINS, NUCLEIC ACIDS, AND ANTIBODIES, AND RELATED METHODS AND COMPOSITIONS PROTEINES
ACIDES NUCLEIQUES ET ANTICORPS DELTEX DE VERTEBRES, ET PROCES ET COMPOSITIONS RELATIFS A CEUX-CI

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BIOLOGICALLY ACTIVE EPH FAMILY LIGANDS LIGANDS BIOLOGIQUEMENT ACTIFS DE LA FAMILLE DES EPH

18/11/10 DIALOG(R)File 349(c) 2004 WIPO/Univento. All rts. reserv.
PROTEINS INVOLVED IN TARGETING OF PEPTIDYL TRANSFER CENTER, AND CORRESPONDING THERAPEUTIC AGENTS AND METHODS. PROTEINES IMPLIQUEES DANS LE CIBLAGE DU CENTRE DE TRANSFERT DE PEPTIDYLE, ET PROCEDES ET AGENTS THERAPEUTIQUES CORRESPONDANTS

18/11/11 DIALOG(R)File 349(c) 2004 WIPO/Univento. All rts. reserv.
METHODS AND VECTORS FOR SITE-SPECIFIC RECOMBINATION. PROCEDES ET VECTEURS PERMETTANT UNE RECOMBINAISON DIRIGEE

18/11/12 DIALOG(R)File 349(c) 2004 WIPO/Univento. All rts. reserv.
GENETIC ALTERATIONS RELATED TO FAMILIAL ALZHEIMER'S DISEASE. ALTERATIONS GENETIQUES LIEES A LA MALADIE D'ALZHEIMER FAMILIALE

18/11/13 DIALOG(R)File 349(c) 2004 WIPO/Univento. All rts. reserv.
MODULATORS OF EXPRESSION AND FUNCTION OF LRP IN ALZHEIMER'S DISEASE. MODULATEURS D'EXPRESSION ET DE FONCTION DE LA PROTEINE ASSOCIEE AU RECEPTEUR DE LA LIPOPROTEINE BASSE DENSITE (LRP) DANS LA MALADIE D'ALZHEIMER

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NUCLEOTIDE AND AMINO ACID SEQUENCE AND USES THEREOF. SEQUENCE DE NUCLEOTIDES ET D'ACIDES AMINES ET SES UTILISATIONS

18/11/15 DIALOG(R)File 349(c) 2004 WIPO/Univento. All rts. reserv.
METHOD FOR SCREENING FOR RECEPTOR AGONISTS AND ANTAGONISTS. PROCEDES DE DEPISTAGE D'AGONISTES ET D'ANTAGONISTES DE RECEPTEURS

18/11/16 DIALOG(R)File 349(c) 2004 WIPO/Univento. All rts. reserv.
RECOMBINANT VESICULOVIRUSES AND THEIR USES. VESICULOVIRUS DE RECOMBINAISON ET LEURS UTILISATIONS

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NUCLEOTIDE SEQUENCE OF THE HAEMOPHILUS INFLUENZAE Rd GENOME, FRAGMENTS THEREOF, AND USES THEREOF. SEQUENCE NUCLEOTIDIQUE DU GENOME HAEMOPHILUS INFLUENZAE RD, DES FRAGMENTS DE CE DERNIER, AINSI QUE SES APPLICATIONS

18/11/18 DIALOG(R)File 349(c) 2004 WIPO/Univento. All rts. reserv.
POLYPEPTIDES HAVING A FUNCTIONAL DOMAIN OF INTEREST AND METHODS OF IDENTIFYING AND USING SAME. POLYPEPTIDES PRESENTANT UN DOMAINE FONCTIONNEL IMPORTANT, ET LEURS PROCEDES D'IDENTIFICATION ET D'UTILISATION

18/11/19 DIALOG(R)File 349(c) 2004 WIPO/Univento. All rts. reserv.
TIE-2 LIGANDS, METHODS OF MAKING AND USES THEREOF. LIGANDS TIE-2, PROCEDES D'OBTENTION DE CES LIGANDS ET LEURS UTILISATIONS

18/11/20 DIALOG(R)File 349(c) 2004 WIPO/Univento. All rts. reserv.
PEPTIDE GROWTH FACTOR HAVING EPIDERMAL INDUCING ACTIVITY. FACTEUR DE CROISSANCE PEPTIDIQUE AYANT UNE ACTIVITE INDUISANT L'EPIDERME

18/11/21 DIALOG(R)File 349(c) 2004 WIPO/Univento. All rts. reserv.
NUCLEOTIDE AND PROTEIN SEQUENCES OF VERTEBRATE SERRATE GENES AND METHODS BASED THEREON. SEQUENCES NUCLEOTIDIQUES ET PROTEIQUES DU GENE DENTELE CHEZ LES VERTEBRES ET PROCEDES FONDES SUR CES SEQUENCES

18/11/22 DIALOG(R)File 349(c) 2004 WIPO/Univento. All rts. reserv.
IDENTIFICATION OF DEC, (DENTRITIC AND EPITHELIAL CELLS, 205 kDa), A RECEPTOR WITH C-TYPE LECTIN DOMAINS, NUCLEIC ACIDS ENCODING DEC, AND USES THEREOF. IDENTIFICATION DE LA PROTEINE MEMBRANAIRE INTEGRALE DEC (CELLULES DENDRITIQUES ET EPITHELIALES, 205 kDa), UN RECEPTEUR A DOMAINES LECTINIQUES DE TYPE C, DES ACIDES NUCLEIQUES CODANT DEC, AINSI QUE SES APPLICATIONS

18/11/23 DIALOG(R)File 349(c) 2004 WIPO/Univento. All rts. reserv.
PEPTIDES SPECIFIC FOR THE FIRST Ck-SH3 DOMAIN. PEPTIDES SPECIFIQUES DU PREMIER DOMAINE SH-3 DE Ck

18/11/24 DIALOG(R)File 349(c) 2004 WIPO/Univento. All rts. reserv.
FUNCTIONALLY ACTIVE DOMAINS OF SIGNAL TRANSDUCER AND ACTIVATORS OF TRANSCRIPTION (STAT) PROTEINS. DOMAINES FONCTIONNELLEMENT ACTIFS DE PROTEINES TRANSDUCTEURS DE SIGNAUX ET ACTIVATEURS DE TRANSCRIPTION (STAT)

18/11/25 DIALOG(R)File 349(c) 2004 WIPO/Univento. All rts. reserv.
METHODS AND COMPOSITIONS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING HIV TRANSMISSION. PROCEDES ET COMPOSITIONS POUR EMPECHER CERTAINS PHENOMENES ASSOCIES AVEC LA FUSION AVEC LA MEMBRANE, EN PARTICULIER LA TRANSMISSION DU VIH

18/11/26 DIALOG(R)File 349(c) 2004 WIPO/Univento. All rts. reserv.
AN SH3 KINASE DOMAIN ASSOCIATED PROTEIN, A SIGNALING DOMAIN THEREIN, NUCLEIC ACIDS ENCODING THE PROTEIN AND THE DOMAIN, AND DIAGNOSTIC AND THERAPEUTIC USES THEREOF. PROTEINE ASSOCIEE AU DOMAINE SH3 DE LA KINASE,

DOMAINE DE SIGNALISATION. DANS CETTE PROTEINE, ACIDES NUCLEIQUES CODANT CETTE PROTEINE ET CE DOMAINE, ET UTILISATIONS DIAGNOSTIQUES ET THERAPEUTIQUES DE CETTE PROTEINE

18/11/27 DIALOG(R)File 349(c) 2004 WIPO/Univento. All rts. reserv.
NEUTRALIZATION OF FOOD ALLERGENS BY THIODEXIN. NEUTRALISATION D'ALLERGENES ALIMENTAIRES PAR LA THIODEXIN

18/11/28 DIALOG(R)File 349(c) 2004 WIPO/Univento. All rts. reserv.
TIE-2 LIGANDS, METHODS OF MAKING AND USES THEREOF. LIGANDS TIE-2, PROCEDES DE PRODUCTION ET UTILISATIONS DE CES LIGANDS

18/11/29 DIALOG(R)File 349(c) 2004 WIPO/Univento. All rts. reserv.
DERIVATIZED MUSCLE KINASE (DMK), A RECEPTOR OF THE TYROSINE KINASE SUPER FAMILY. KINASE DE MUSCLE ENERVE (DM) UN RECEPTEUR DE LA SUPER FAMILLE DES TYROSINES KINASES

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MARKERS OF ORGAN REJECTION. MARQUEURS DE REJET D'ORGANES

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COMPOSITIONS COMPRISING COMPLEMENT RELATED PROTEINS AND CARBOHYDRATES, AND METHODS FOR PRODUCING AND USING SAID COMPOSITIONS. COMPOSITIONS COMPRENANT DES PROTEINES ET DES GLUCIDES APPARENTES COMPLEMENTAIRES, ET LEURS PROCEDES DE PRODUCTION ET UTILISATION DE CES COMPOSITIONS

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CLONING AND RECOMBINANT PRODUCTION OF VESPID VENOM ENZYMES, SUCH AS PHOSPHOLIPASE AND HYALURONIDASE, AN IMMUNOLOGICAL THERAPY BASED THEREON. PRODUCTION PAR CLONAGE ET RECOMBINAISON D'ENZYMES DE VENIN DE VESPIDES TELLES QUE LA PHOSPHOLIPASE ET L'HYALURONIDASE, ET THERAPIES IMMUNOLOGIQUES SY RAPPORTANT

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HUMAN HOMOLOG OF THE E-CADHERIN GENE AND METHODS BASED THEREON. HOMOLOGUE HUMAIN DU GENE DE LA CADHERINE ET PROCEDES D'UTILISATION

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THERAPEUTIC AND DIAGNOSTIC METHODS AND COMPOSITIONS BASED ON NOTCH PROTEINS AND NUCLEIC ACIDS. PROCEDES THERAPEUTIQUES ET DIAGNOSTIQUES ET COMPOSITIONS A BASE DE PROTEINES NOTCH ET D'ACIDES NUCLEIQUES

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PAPILLOMAVIRUS VACCINES. VACCIN CONTRE LE PAPILLOMAVIRUS

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A NOVEL RECEPTOR FOR ALPHA4 INTEGRINS AND METHODS BASED THEREON. NOUVEAU RECEPTEUR D'INTEGRINES ALPHA4 ET PROCEDES BASES SUR CELUI-CI

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BINDING PEPTIDES WHICH INTERACT WITH LIGAND GROWTH FACTORS OF THE EPIDERMAL GROWTH FACTOR RECEPTOR AND erbB-2 RECEPTOR. PEPTIDES FIXATEURS QUI AGISSENT RECIPROQUEMENT AVEC LES FACTEURS DE CROISSANCE DE LIGANDS DU RECEPTEUR DU FACTEUR DE CROISSANCE DE L'EPIDERME ET DU RECEPTEUR DE erbB-2

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NUCLEOTIDE AND PROTEIN SEQUENCES OF THE SERRATE GENE AND METHODS BASED THEREON. SEQUENCES NUCLEOTIDIQUES ET PEPTIDIQUES DU GENE DENTELE ET PROCEDES BASES SUR CES SEQUENCES

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SF-25 ANTIBODIES, ESPECIALLY CHIMERIC ANTIBODIES, WITH SPECIFICITY FOR THE HUMAN TUMOR SF-25 ANTIGEN, METHODS FOR THEIR PRODUCTION, AND USES THEREOF. ANTICORPS SF-25, NOTAMMENT ANTICORPS CHIMERIQUES SPECIFIQUES DE L'ANTIGENE DE SF-25 DE TUMEURS HUMAINES, LEURS PROCEDES DE PREPARATION ET LEUR UTILISATION

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LIGAND GROWTH FACTORS THAT BIND TO THE erbB-2 RECEPTOR PROTEIN AND INDUCE CELLULAR RESPONSES. FACTEURS DE CROISSANCE LIGANDS QUI SE LIENT AU RECEPTEUR PROTEIQUE erbB-2 ET INDUISENT DES REPONSES CELLULAIRES

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TUMOR SUSCEPTIBLE NON-HUMAN ANIMALS. ANIMAUX NON HUMAINS SUSCEPTIBLES D'AVOIR UNE TUMEUR

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CONJUGATES OF POLY(VINYLSACCHARIDE) WITH PROTEINS FOR THE STABILIZATION OF PROTEINS. CONJUGUES DE POLY(VINYLSACCHARIDE) AVEC DES PROTEINES POUR LA STABILISATION DE PROTEINES

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GLYCOPROTEIN HORMONE RECEPTOR MOLECULES. MOLECULES RECEPTRICES D'HORMONE DE GLYCOPROTEINE

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DETERMINATION OF FACTORS AFFECTING GENE REGULATION AND/OR GENE REPLICATION DETERMINATION DES FACTEURS AFFECTANT LA REGULATION ET/OU LA REPLICATION DE GENES

18/T/145 DIALOG(R)/File 349(c) 2004 WIPO/Univento. All rts. reserv.
HUMAN HEAT SHOCK FACTOR FACTEUR DE CHOC THERMIQUE HUMAIN

18/T/146 DIALOG(R)/File 349(c) 2004 WIPO/Univento. All rts. reserv.
SF-25 COLON ADENOCARCINOMA ANTIGEN, AND ANTIBODIES WHICH RECOGNIZE THIS ANTIGEN ANTIGENE SF-25 DE L'ADENOCARCINOME DU COLON ET ANTICORPS RECONNAISSANT CET ANTIGENE

18/T/147 DIALOG(R)/File 349(c) 2004 WIPO/Univento. All rts. reserv.
CARCINOMA-ASSOCIATED ANTIGENS, AND ANTIBODIES WHICH RECOGNIZE THESE ANTIGENS ANTIGENES ASSOCIES AU CARCINOME ET ANTICORPS LES RECONNAISSANT

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RTK/CYTOKINE RECEPTOR CHIMERAS RECEPTEURS CHIMERES DE RTK/CYTOKINE

21/T/12 DIALOG(R)/File 349(c) 2004 WIPO/Univento. All rts. reserv.
APTAMER SPECIFIC FOR BIOMOLECULES AND METHOD OF MAKING APTAMERE SPECIFIQUE DE BIOMOLECULES ET PROCEDE DE PRODUCTION